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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER MAKSYMENKO, JOHN M				
ART UNIT 4145		PAPER NUMBER		
NOTIFICATION DATE 04/16/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/568,410

Applicant(s)

TEYSSIE ET AL.

Examiner

JOHN M. MAKSYMOKO

Art Unit

4145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SD/US)
Paper No(s)/Mail Date 20060822
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Specification

1. The use of the trademark Desmodur has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1-3, 11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Lindemann et al (US 4,683,165).

Regarding claims 1-3 and 14, Lindemann discloses a molding composition (Molded glass mat: Columns 19-20, Example 13), comprising a mixture of interpenetrating polymers (Column 1, Line 12) with a first phase of a crosslinked (Column 5, Lines 58-59) isobutene polymer (Column 4, Line 58) and with a second phase of a reinforcing polymer which comprises (meth)acrylic and/or vinylaromatic units (Styrene: Column 5, Line 21); wherein the weight ratio of the first phase to the second phase is from 5:95 to 80:20 (Column 8, Line 67 to Column 9, Line 3); wherein the isobutene polymer comprises at least 80% by weight of isobutene units as there is no

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indication of anything other than isobutene in the isobutene (Column 4, Line 58) and a material for the roofing of buildings comprising the composition (Column 2, Line 6 and Column 20, Example 13).

Regarding claim 11, Lindemann discloses a process for preparing the molding composition comprising polymerizing the monomers which form the structure of the reinforcing polymer by a free-radical route in the presence of the first phase (Column 4, Lines 8-23 and Column 8, Lines 33-36).

Regarding the method limitations recited in claim 1 the examiner notes that even though a product-by-process is defined by the process steps by which the product is made, determination of patentability is based on the product itself. In *re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). As the court stated in *Thorpe*, 777 F.2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. In *re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwahara et al. (US 4,904,732) in view of Lindemann et al. (US 4,683,165).

Regarding claim 1 and 8, Iwahara discloses a molding composition (Column 14, Lines 50-51), comprising a crosslinked isobutene polymer (Abstract). The reference is silent, however, to the mixture comprising an interpenetrating polymer network with a second phase of a reinforcing polymer which comprises methyl methacrylate and/or styrene units.

Lindemann teaches a composition comprising an interpenetrating polymer network (Column 1, Line 13) with a first phase of isobutylene polymer (Column 4, Lines 8-10 and 58) and second phase of a reinforcing polymer which comprises methyl methacrylate and/or styrene units (Column 5, Lines 18-21) to take advantage of desirable physical properties of each phase such as dual glass transition temperatures, higher tensile strength, higher modulus, and higher impact strength (Column 4, Lines 31-35 and 40-45).

As both Iwahara and Lindemann relate to crosslinked polyisobutylene compositions, it would have been obvious to one having ordinary skill in the art at the time of the invention to add the methacrylic and/or vinylaromatic monomers of Lindemann to the molding composition of Iwahara for the purpose of taking advantage of desirable physical properties of each phase such as dual glass transition temperatures, higher tensile strength, higher modulus, and higher impact strength (Lindemann: Column 4, Lines 31-35 and 40-45).

Regarding the method limitations recited in claims 1, 4, 6, and 7 the examiner notes that even though a product-by-process is defined by the process steps by which the product is made, determination of patentability is based on the product itself. In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). As the court stated in Thorpe, 777 F.2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. In re Pilkington, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.).

Regarding claims 2 and 10, modified Iwahara discloses all of the limitations of claim 1 as set forth above. Additionally, the reference discloses the composition wherein the ratio by weight of the first phase to the second phase is from 5:95 to 25:75 (Lindemann: Column 8, Line 67 to Column 9, Line 1). It would have been obvious to one of ordinary skill in the art at the time of invention to have selected the overlapping portion of the ranges disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness. *In re Malagari*, 182 USPQ 549.

The phrase “for use as impact-modified polystyrene or polymethyl methacrylate” is considered a statement of intended use. The intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Because the molding composition of modified Iwahara is not structurally different from the molding composition as claimed by Applicant, the molding composition as claimed does not provide patentable distinction over the prior art of record. .

Regarding claim 3, modified Iwahara discloses all of the limitations of claim 1 as set forth above. Additionally, the reference discloses the composition wherein the isobutene polymer comprises at least 80% by weight of isobutene units (Iwahara: Column 1, Line 67-Column 2, Line 1).

Regarding claim 5, modified Iwahara discloses all of the limitations of claim 1 as set forth above. Additionally, the reference discloses the composition wherein the

isobutene polymer has a number-average molecular weight of from 500 to 50 000 prior to the crosslinking process (Iwahara: Column 14, Lines 63-64).

Regarding claim 9, modified Iwahara discloses all of the limitations of claim 1 as set forth above. Iwahara does not disclose the addition of a crosslinking monomer nor the reinforcing polymer.

Lindemann teaches a composition wherein the reinforcing polymer comprises units of a crosslinking monomer (Column 5, Lines 58-60) to increase the molecular weight of the polymer and to obviate subsequent drying or curing (Column 5, Lines 64-68).

As both Iwahara and Lindemann relate to crosslinked polyisobutylene compositions, it would have been obvious to one having ordinary skill in the art at the time of the invention to use the crosslinking monomer in the reinforcing polymer of Lindemann in the composition of Iwahara for the purpose of increasing the molecular weight of the polymer and to obviate subsequent drying or curing (Column 5, Lines 64-68).

Regarding claim 11, modified Iwahara discloses all of the limitations of claim 1 as set forth above. Additionally, the reference discloses a method for preparing the molding composition comprising polymerizing the monomers which form the structure of the reinforcing polymer by a free-radical route in the presence of the first phase (Lindemann: Column 4, Lines 8-23 and Column 8, Lines 33-36).

Regarding claim 13, modified Iwahara discloses all of the limitations of claim 1 as set forth above. Additionally, the reference discloses the use of the isobutylene polymer and crosslinking agent as an adhesive (Iwahara: Column 14, Line 47). The reference

does not explicitly disclose bringing the curable mixture of the isobutylene and cross linking agent into contact with the surfaces of a molding material and permitting the mixture to cure fully. As these are the general steps for using any curable adhesive, it would have been obvious to one having ordinary skill in the art at the time of the invention to use the composition of Iwahara in this manner as it amounts to nothing more than using a known composition for its intended purpose in a known environment to achieve an entirely expected result.

Regarding claim 14, modified Iwahara discloses all of the limitations of claim 1 as set forth above. Additionally, the reference discloses using the composition as a molding material and a roofing material (Iwahara: Column 14, Lines 50-51 and Lindemann: Column 2, Lines 6-13 and Column 20, Example 13).

Regarding the roofing material language in claim 14, statements in the preamble reciting the purpose or intended use of the claimed invention which do not result in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art do not limit the claim and do not distinguish over the prior art apparatus (or process). See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963); *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962). If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) and cases cited therein, as it has been held that the recitation of a new intended use for an old product does not make a claim to that old product patentable. *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997). See also MPEP § 2111.02 and § 2112 - § 2112.02.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN M. MAKSYMONKO whose telephone number is (571)270-3239. The examiner can normally be reached on Monday-Thursday, 7:30AM-5:00PM, and alternating Fridays 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on 571-272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gwendolyn Blackwell/
Primary Examiner, Art Unit 1794

JM
02 April 2008